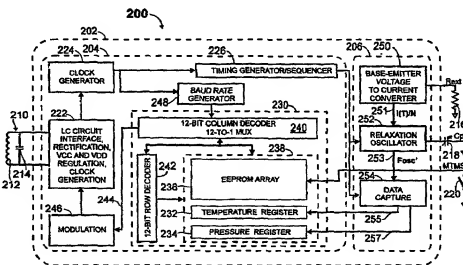




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(54) Title: POWER-ON RESET FOR TRANSPONDER



(57) Abstract

A power-on reset for a transponder (102, 200, 400) capable of measuring one or more parameters (e.g., temperature, pressure) in an object (e.g., a tire, 104) and transmitting a data stream (Figures 3C, 4B) to an external reader/interrogator (106). The transponder typically operates in a passive mode, deriving its power (V_{xx}, V_{cc}, V_{dd}) from an RF interrogation signal received by an antenna system (210, 410), but can also operate in a battery-powered active mode. The transponder includes memory (238, 438) for storing measurements, calibration data, programmable trim settings (436b), transponder ID and the like. A power-on reset circuit (600) prevents operation of the transponder until it is stable, and starts transmission of the data stream at a first bit of the data stream, in order to ensure a first-pass transmission of a complete data stream. It also prevents modulation of the antenna system for data stream transmission if the power levels are too low for stable transponder operation during modulation.